



# MEETING MINUTES

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Project: HAMPTON FALLS-HAMPTON 13408B Replacement I-95 Bridge over  
Taylor River and Replacement or Removal of Taylor River Dam (PART A)

Meeting Location: Hampton Falls Town Office

Date: October 29, 2007

Attendees: See attached

Prepared By: Richard Stewart, P.E.

Re: Public Information Meeting

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Bob Landry, Project Manager for the NH Department of Transportation (NHDOT), opened the meeting by introducing the members of the Technical Committee that were present and then gave a brief overview of the current situation and the proposed project. The dam that creates the Taylor River impoundment was built in 1949 and is in need of repair. The current dam does not meet dam safety standards. In the 1960's a fish ladder was constructed and attached to the dam. The fish ladder is also in need of repair and due to the location of the overflow culvert is not attracting fish effectively during high water events. The abutments of the bridge (steel sheetpiles) that carries Interstate 95 (I-95) over the Taylor River are beginning to deteriorate and are also in need of repair. This project intends to repair or replace the bridge and to investigate repair, relocation, or removal of the dam and fish ladder.

To determine the best solution for these problems, a feasibility study was conducted to develop and evaluate alternatives, and to identify the best alternative to accomplish the purpose and need of the overall project. There were three alternatives available – no action; repairing the bridge and a new bridge. The feasibility study indicated that to repairing the bridge while maintaining I-95 traffic and the water flow of the Taylor River was not feasible. Therefore, the bridge should be replaced. The best location for replacing the bridge is to relocate it at its historic riverbed location (approximately 500 feet south of its current location). This is the approximate location of the riverbed channel prior to the dam being constructed. With this determined, there were two alternatives available - new bridge (at historic riverbed location) with dam and fishway; and new bridge (at historic riverbed location) with removal of the dam.

Bob L. next discussed the impact from the various alternatives on flooding, natural resources (fisheries, water quality, wetlands), wells, cultural resources and the socioeconomic environment.

The Mother's Day flood of May 2006 caused water levels within the impoundment to rise to an elevation of approximately 15.7, which was above the home sills (el. 14.25) of a few houses in Taylor River Estates. The new dam alternative would lower the 100-year flood elevation by 2.4 feet (el. 13.3), which would be below the lowest home sill's elevation by almost one foot. The dam removal alternative would lower the flood elevation even more to an elevation of 9.0 feet, which is the FEMA flood from the Town's Flood Insurance Study.

The new dam and fishway alternative would continue river herring (*Alosa pseudoharengus* and *Alosa aestivialis*) passage into the pond, as well as maintain the resident fishery. The dam removal alternative would eliminate the impoundment reverting the Taylor River back to a freshwater/tidal environment. The river would be restored as a tidal coastal system, which would freely open the river to diadromous, estuarine, and marine species producing a saltwater fishery and improve the poor water quality conditions within the impoundment.

The new dam alternative would not change the existing poor water quality condition of the impoundment, for example the low dissolved oxygen in the deeper areas of the impoundment in summer. The dam removal alternative would eliminate the impoundment and restore the tidal river, thereby allowing the dynamic processes of the river system to improve the water quality and sediment transport issues.

The new dam and fishway alternative would not impact the existing wetland types, but there would be a benefit from increased forage fish. The dam removal alternative would revert the riverine habitat to a mosaic of tidal creek, salt marsh, freshwater marsh and wooded wetlands. There would be a reduction of freshwater wetland functions while reverting to the former estuarine community.

The new dam alternative would not impact the shallow or bedrock wells that surround the pond as the surface water level would not change. For the dam removal alternative, there is no anticipated impact to bedrock wells lacking fractured bedrock connections to the river. The shallow aquifer and community wells are more susceptible to a lowering of the water table. Further study would be necessary to refine the potential zone of saltwater intrusion.

The new dam and fishway alternative could potentially affect archeological resources for construction activities occurring outside areas of previously disturbed highway construction. The dam removal alternative could potentially affect archeological resources by exposing sensitive historic anthropogenic areas. The NH Division of Historic Resources (NHDHR) has been consulted relative to this proposed project and the various alternatives. Additional consultations with the NHDHR may be required to discuss the need for additional studies on archeological resources should the dam removal option be pursued.

The socio-economic environment includes the impact to the public from the alternatives for the project. Areas affected include recreational opportunities and aesthetics. The new dam and fishery alternative would improve the socioeconomic condition in the form of improvements to the existing fishery resources and possible increased usage of the resource. The dam removal alternative would substantially alter the current habitat characteristics, recreational uses and scenic views within the impoundment, but would substantially improve the natural dynamic state of the Taylor River.

Bob L. next introduced Bernward Hay, Louis Berger Group, Principal Environmental Scientist, to discuss the human and aquatic health issues found in conjunction with the sediment and fish tissue analyses that was necessary due to the levels of pesticides in the soil samples.

Bernward H. explained that sediment and fish sampling was conducted at various locations in the impoundment and that NH Fish and Game Department conducted the fish sampling. Fine-grained organic-rich sediment with an average thickness of one foot has accumulated since the dam was built. Both sediment and fish tissues contain pesticides (DDD, DDT, & DDE).

Regarding human health risks, the pesticide concentrations measured in the sediment do not pose a risk to human health from direct exposure. Similarly, there is no risk of adverse human health effects from the consumption of Taylor River fish at the rate recommended in the Department of Environmental Services (NHDES) state-wide fish consumption advisory. (The advisory already recommends reduced fish consumption due to mercury concerns in New Hampshire).

Sediment in the lower impoundment (closest to the dam) poses unacceptable risk to benthic organisms impacting the aquatic ecosystem. Pesticide concentrations in the sediment have bioaccumulated in fish to levels that pose unacceptable ecological risk to the wildlife that forage on them. As a result, appropriate measures are being investigated that will address these risks under the various alternatives considered by NHDOT.

Bob L. finished the formal presentation by discussing the next steps in the process which includes collecting public comments, finalizing the feasibility study, holding additional public informational meetings and selecting the preferred alternative. The Department envisions conducting a Public Informational Meeting in January or February of 2008. The project is funded with 100% Turnpike funds and was recently listed as a high priority for the turnpike associated with the toll increase. The cost of the new bridge and dam would be approximately \$9.5 million, and approximately \$8 million without the dam depending on contaminated soil removal issues. The project is scheduled to advertise for bids in the winter of 2009 with construction during 2009 and 2010.

The meeting was then opened for questions and comments.

The following types of questions were posed pertaining to the dam removal alternative:

- What the area would look like with the dam removed.
- Whether there would be an increase in biting insects (e.g. green-heads and mosquitoes).
- Whether the exposed mudflats would smell?
- What would happen to the habitat for the waterfowl and wildlife utilizing the current impoundment?
- Impacts to the current fishing environment and other pond recreational activities.
- Whether Property values would be affected.
- Property ownership of the exposed area of the drain impoundment.
- Whether a lowered water table would impact wells and dry hydrants.

Ted Diers, NH Coastal Program Manager, discussed the benefits and process of salt marsh restoration and how the area upstream of I-95 would change from a freshwater pond habitat to a saltwater estuary habitat if the dam were removed. He noted that there has been a significant amount of salt marsh restoration being done over the past 15 years. Currently there is only 6,000 acres of salt marsh in New Hampshire. He noted the area would be revegetated probably within one season and would look similar to the tidal section of the Taylor River downstream below I-95. Ted D. also expounded on the fact that habitat for saltwater marsh would replace the current freshwater marsh habitat. This type of ecosystem is rare and New Hampshire only has 2-3 of these systems currently available. These ecosystems are important because of the diversity they provide.

Deb Loiselle, NHDES River Restoration Coordinator, addressed the question of change in property values with a reference to a Wisconsin dam removal study that showed the property values actually went up in value when the dam was removed and the river was restored to more natural conditions.

Bob L. noted that there are easements to the center of the river that were obtained by the NHDOT prior to the construction of the dam in the 1950's and the easements would be relinquished if the dam removal option was selected.

Bob L. noted that more research was needed on the well and the dry hydrant issues if the Department were to propose to remove the dam.

Bob L. noted that the NHDOT does not want to own the dam and suggested that the town or other community group step forward to take ownership of the dam. Executive Councilor Beverly Hollingworth stated that the property owners do not want to take ownership of the dam because of the responsibilities and liabilities that come with dam ownership and that the State should continue being the owner.

A resident expressed that he understood that there is some sort of Agreement that the NHDOT is obliged to maintain the impoundment. Bob L. noted that this topic has been brought forth in prior meetings and the NHDOT has not been able to verify such an Agreement.

Another resident commented that even though she had a couple of inches of water in her first floor home during the May 2006 flood, she did not want to give up the freshwater pond that the dam has created.

State Representative Nancy Stiles summarized the discussions noting that the message the State heard was that the public wants to keep the freshwater impoundment and the associated recreation opportunities, despite the benefits of the saltwater estuary alternative. Bob L. agreed with that summary.

Near the end of the meeting, Mary Boynton offered to spearhead the formation of a local advisory group that would serve to collect comments and opinions from the local residents and work with the Town Selectmen prior to the next Public Informational Meeting.

Bob L. thanked the public for their input on the project and the meeting ended.